

Effect of Hepatic Extract on the Cardiovascular Apparatus.—ROGER (*Presse méd.*, May 24, 1922) reports experimental studies with hepatic extracts which follow a series of observations upon the effect of extracts of various organs upon the heart and cardiovascular apparatus. In the case of hepatic extracts he finds two groups of chemical substances grouped according to their physiologic action. Some are alcohol-soluble and exert a striking vasoconstrictor action. Among the other substances is one that exerts a powerful effect upon the heart, producing a bradycardia of sinus origin. One tracing shows a pulse-rate of less than one-third the normal rate, which followed the injection of hepatic extract into an experimental animal.

A Ten Year Old Strain of Fibroblasts.—EBELING (*Jour. Exp. Med.*, 1922, 35, 657) describes a strain of fibroblasts obtained from the heart of a chick embryo which has completed the tenth year of its life *in vitro*, during which time it has passed through 1860 generations. The author believes that fibroblasts will proliferate indefinitely, as do colonies of infusoria. During this time the technic of preserving this "potential immortality" has been progressively perfected, and more than 30,000 cultures have been derived from the original fragment. With the development of methods whereby differences of less than 10 per cent in the rate of growth could be detected, these cultures have been used for physiological studies by Carrel, Ebeling, and others. The cells remained indefinitely young or grew old according to the food material which they were given and the extent of the elimination of their catabolic substances. Thus embryonic juice was found to contain a substance which increases the velocity of cell multiplication to a high degree. In the same manner, it was found that adult serum produces an effect opposite to that of embryonic juice. This inhibiting power of a serum increased very much with the age of the animal from which it was obtained. It was also shown that the strain responds to the presence of a foreign protein in the culture medium by becoming immunized against its action. As it has become possible lately to obtain strains of lymphocytes and of epithelial cells living *in vitro* by practically the same procedure that is used for fibroblasts, the scope of these studies will be increased. Several excellent photomicrographs of the proliferating fibroblasts accompany the article.

Studies on Asthma.—LARSON, PADDOCK and ALEXANDER (*Jour. Immunol.*, 1922, 7, 81) report their observations of bronchial asthma and allied conditions. The work was carried on in the asthma clinic of the Bellevue Hospital, New York City. It embraced the following investigations: (a) A continued study of the clinical considerations of asthma, (b) observations on skin reactions, and (c) effects of vaccine therapy. Briefly from the clinical standpoint the authors emphasize the importance of recognizing bronchial asthma as speedily as possible, eliminating those cases which fall into an entirely different group. They classify their cases as follows: (1) Bronchial asthma, simple and uncomplicated; (2) chronic bronchial infection with its complications simulating bronchial asthma; (3) bronchial asthma, complicated by chronic bronchitis. The first type is very well defined by a typical history suggesting a sensitiveness to a foreign protein. The second type is quite the opposite.

There is no history of allergic conditions. There is a bronchial infection simulating bronchial asthma. The third type is primarily type one, on which infection is superimposed. The immunological studies reveal several important facts. The authors compare the different methods of performing the skin tests. They feel that the intracutaneous method of determining an individual's sensitiveness is far more accurate than the scratch method. In the first place if one is using dry preparations with the scratch method there is no way in which to tell whether they have lost their potency. With solutions, contaminations are easily detected. To compare the two methods a number of known sensitive individuals were tested by the cutaneous and intracutaneous procedures with the same solutions. The experiment reveals that certain individuals, whose asthma is brought on by a specific pollen, fail to react by the scratch method but with an intracutaneous injection a very definite skin reaction occurs. The authors further state that the reaction depends somewhat on the length of the scratch. A long scratch for example gives a broader reaction than a short one. They also are of the opinion that the location of the scratch influences the reaction although they offer no explanation why this should affect it. The reaction is also influenced by the amount of protein brought in contact with the cells, and the amount of solution injected into the skin. With reference to vaccine therapy in asthma, the authors are rather optimistic. They feel that in asthma associated with bronchial infection vaccines, if given with caution, are worth a trial. How these agents act has not been determined, and further study is planned.

Neurorecurrences Following Arsphenamine.—ZIMMERMAN (*Arch. Dermat. and Syph.*, 1922, 5, 723) reports a study of 39 cases of neurorecurrences (precocious neurosyphilis) following arsphenamine. The material is in large part from the syphilis department of the Johns Hopkins Hospital. He divides the cases into three groups: (1) Acute syphilitic meningitis with or without focal cranial nerve lesions; (2) meningitis of moderate or slight intensity, manifested chiefly by headache and focal lesions; (3) a group in which there are no general symptoms of syphilitic meningitis, the entire complaint being due to a focal lesion. He demonstrates that the facial and auditory nerves are those most frequently involved (in 18 cases), both nerves frequently being involved in the same patient. The clinical details of the author's cases are well summed up in a most exhaustive table. From a study of the literature two groups of neurorecurrences may be differentiated from the pathological standpoint: First, a diffuse meningovascular process, and second, focal lesions involving especially the optic, auditory, and facial nerves, without diffuse changes. The first group always presents definite abnormalities in the cytobiology of the cerebrospinal fluid, whereas in the second, the fluid is often normal. Neurorecurrences are to be explained on the basis of resumed activity of temporarily suppressed organisms in a host unable to develop resistance owing to therapeutic interference. The importance of a thorough course of mercury in all cases of early syphilis is emphasized. According to the author, efficient mercurial treatment, administered immediately following arsphenamine, eliminates these serious reactions on the part of the central nervous system as successfully as combined therapy.